JULY 1980
No. 7

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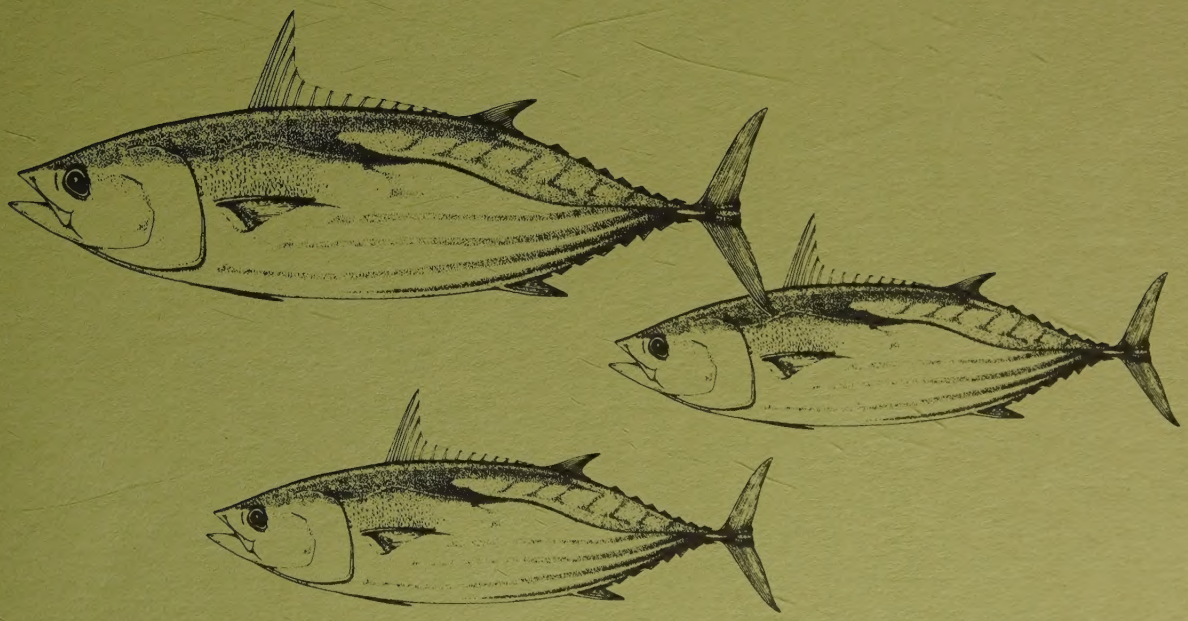

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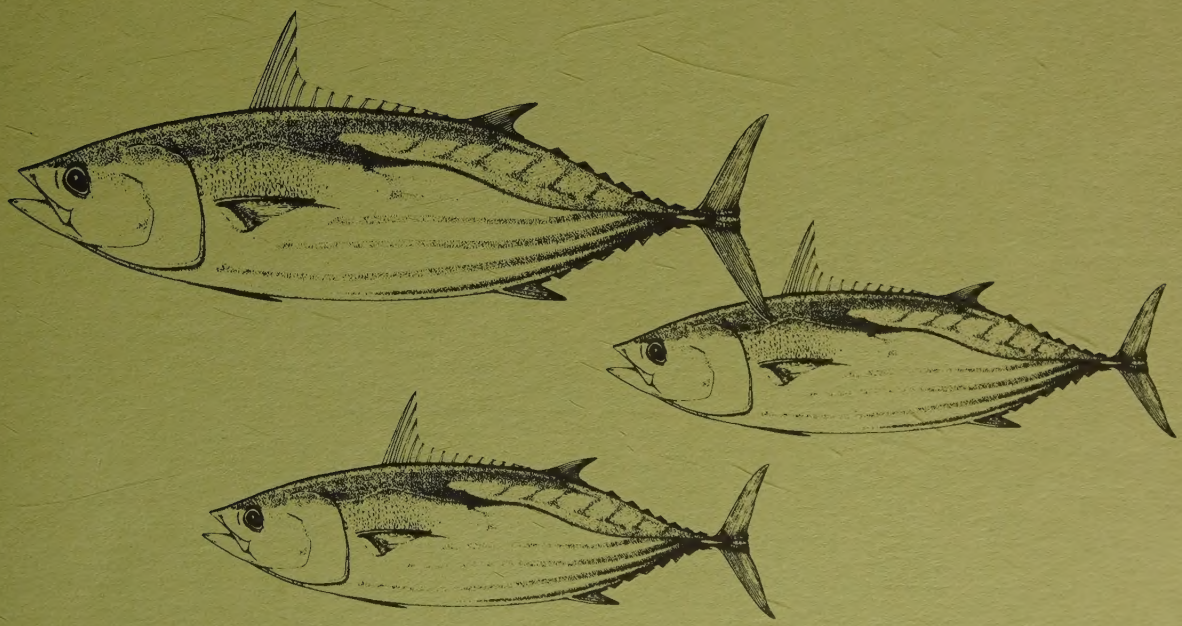

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SOUTHWEST FISHERIES CENTER
8604 LA JOLLA SHORES DRIVE - P. O. BOX 271
LA JOLLA, CALIFORNIA 92037

FISHING INFORMATION

JULY 1980, No.7

EDITOR: JAMES A. RENNER

I. Barrett, Director, SOUTHWEST FISHERIES CENTER
J. Carr, Deputy Director

PREFACE

This publication, Fishing Information, appears monthly and contains 1) fishery advisory information, 2) a narrative description of pertinent surface temperature conditions, 3) charts of winds and pressures for the eastern North Pacific, 4) charts of sea surface temperature for the North Pacific and eastern tropical Pacific, and 5) charts of subsurface temperature structure in the eastern North Pacific.

A supplement to Fishing Information appears at 15-day intervals throughout the year. It contains a chart of sea surface temperature (contoured at $2^{o}F$ ($1^{o}C$) intervals) from Baja California to Vancouver Island out to about $135^{o}W$. Special bulletins are published in conjunction with the 15-day sea surface temperature charts which include short-term projections of albacore distribution and locations of productive fishing areas, information on oceanographic and atmospheric conditions, and other information as is appropriate during the albacore fishing season.

NOTICE TO SUBSCRIBERS

Publication of FISHING INFORMATION and its fifteen day supplements by the National Marine Fisheries Service will cease with the September 1980 issue. Beginning with the October issue, responsibility for the preparation of the types of charts currently published in Fishing Information will be transferred to the National Weather Service and the National Environmental Satellite Service. Scientists of the Fishing Information staff are currently working with National Weather Service and National Environmental Satellite Service personnel to ensure that the follow-on publication to Fishing Information meets user needs and that a smooth transition takes place.

We here at the National Marine Fisheries Service wish to thank you for your continued interest in and support for FISHING INFORMATION and urge you to lend similar support to the new National Weather Service/National Environmental Satellite Service publication.

To cancel delivery of this publication in the event you no longer need to receive it, or to change the delivery address if you are moving but still need to receive it, please notify us by writing: Editor, Fishing Information, National Marine Fisheries Service, Southwest Fisheries Center, P. O. Box 271, La Jolla, California 92038.

Submitted for publication - September 2, 1980

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ENVIRONMENTAL CHARTS ANALYZED BY:

F. Miller (Figures 8 and 9)
J. Renner (Figures 1, 2, 3, 4, 5, 6, 7, and 15-day Supplement)

TECHNICAL EDITOR:
R. Allen

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  J. Redhead at Langara Island Light;
  H. Ewen at Cape St. James Light;
  R. W. Moe at Kains Island Light;
  M. V. Stewart at Amphitrite Point Light

Scripps Institution of Oceanography, La Jolla, California

Sea Surface Temperature and Environmental Conditions

Forrest R. Miller

Eastern North Pacific

During July the eastern Pacific high pressure system is normally centered near 39°N, 150°W and the Aleutian low is centered near 55°N, 175°W (Figure 1). Seasonal warming of the sea surface temperatures (SST) normally occurs over the north Pacific except along the central part of the U. S. west coast. Wind induced coastal upwelling and offshore wind mixing usually keep SST's lower along the coast. Most of the north Pacific weather centers moved across the Gulf of Alaska and over British Columbia in July.

During July 1980 the Pacific high center was near 40°N, 150°W, with central pressures 4 to 6 millibars above normal (Figure 2). The Aleutian low pressure center was weak and shifted to the northwest near 65°N, 170°E. During most of the month a ridge of high pressure extended from the center of the high northeastward over British Columbia. As a result, strong northerly surface winds persisted for long periods from the coast of Washington southward to Point Conception and westward to 135°W. Except near shore, surface winds were 2 to 4 knots above normal off the U. S. west coast. Because of the large persistent high pressure system over the central Pacific, most storm centers moved across the Gulf of Alaska and over northern British Columbia. Surface winds and ocean mixing were also greater than normal from 45°N to 55°N and from 25°N to 35°N west to 140°W because of the strong wind circulation along the periphery of the high pressure system.

The pattern of SST's (Figure 3) was similar to June 1980 but reflected seasonal warming. The north Pacific Ocean front was better organized than in June between 40°N and 45°N west of 150°W where the isotherms were closely spaced. This was due in part to the above normal warming rate of SST's (Figure 5) under the influence of the Pacific high pressure system north of 40°N. South of 40°N and west of 140°W, SST's were 1 to 2°C below normal along the southern boundary of the Pacific high where wind mixing was extensive. This also occurred offshore along the west coast where strong northerly winds generated heavy seas and considerable ocean mixing most of the month. The patterns of SST differences between July 1980 and July 1979 (Figure 7) were similar to the SST departure from normal patterns (Figure 5) primarily due to the circulation around the eastern Pacific high pressure system which was the dominant meteorological feature during July 1980.

Albacore tuna fishing was best off southern California (Southwest of Cortes Bank) and northern Baja California where SST's and fishing weather were favorable. Commercial boats made good catches from 150 to 300 miles off central California. Closer inshore from Cape Blanco to Point Conception seas were often too rough for fishing.

Western North Pacific

The western Pacific high pressure system was weaker than normal and displaced south of its normal position for July. The Aleutian low was also weak. This resulted in below normal storm and associated wind mixing north of 40°N over the northwest Pacific. Because

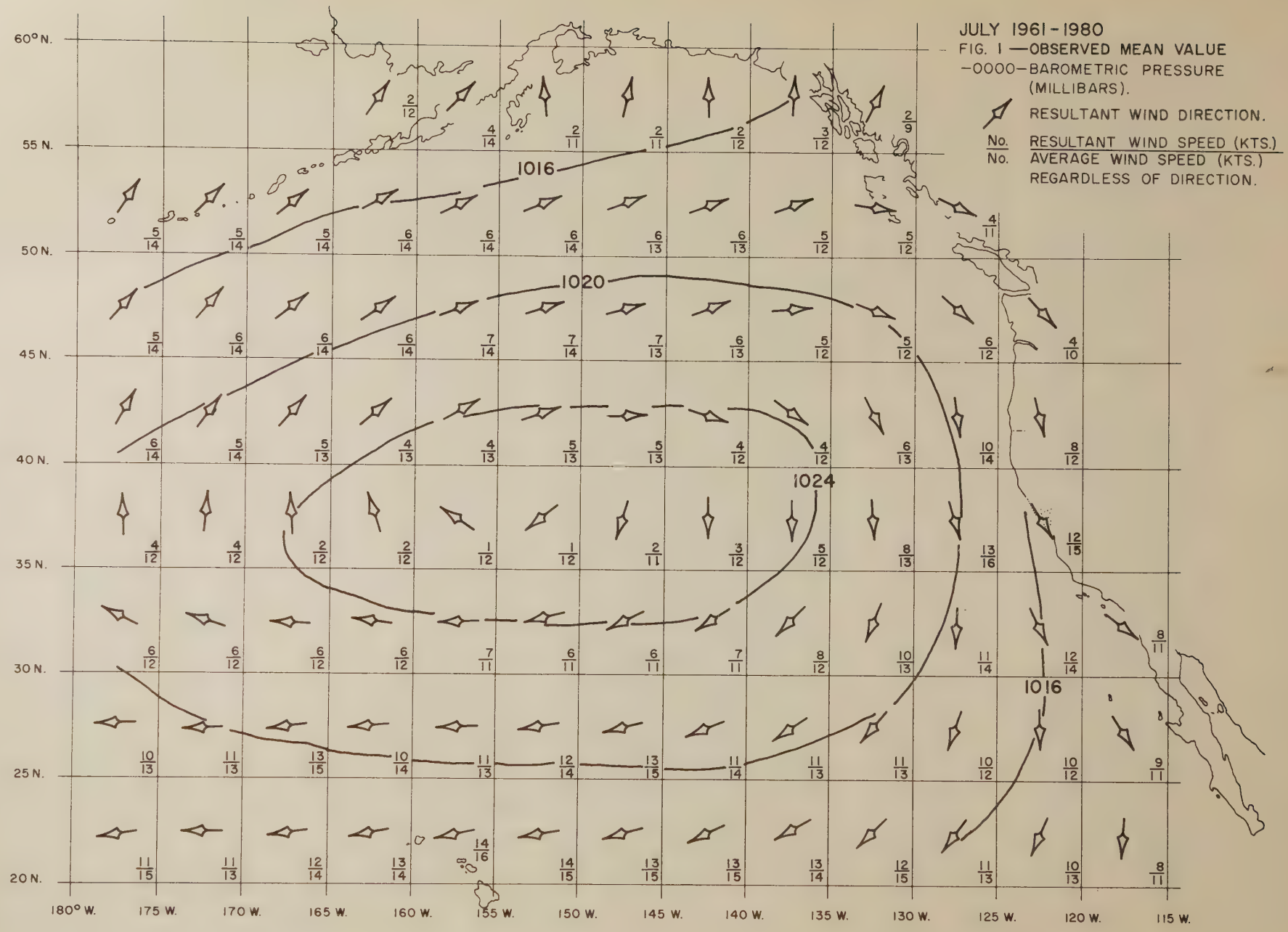
of the general weakness in the surface wind patterns and the dominance of the weak high pressure system, the north Pacific Ocean front was also weakened in July. There were no sharply defined temperature edges or boundaries between 40°N and 45°N (Figure 4) as were found in previous months. The alternating centers of positive and negative SST departures more than 1°C above and below normal north of 35°N (Figure 6) were indicative of the relatively small influence of weather and surface wind patterns on the ocean surface during mid-summer. South of 35°N, SST's were above normal over most of the area where pressures were high and light winds prevailed. Several tropical storms formed over the warm tropical seas and moved northwestward and intensified over the warm water south of Japan.

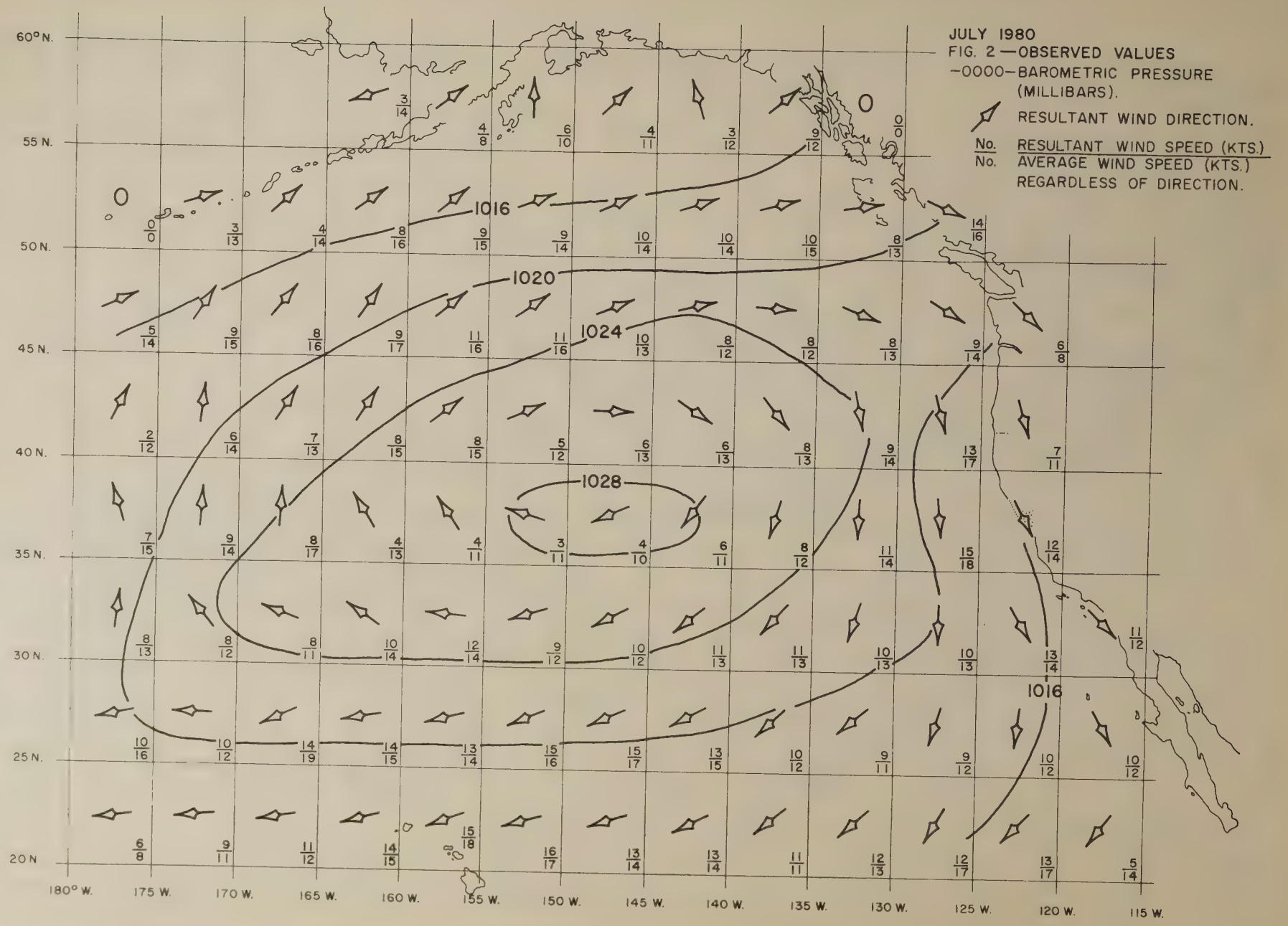
Eastern Tropical Pacific

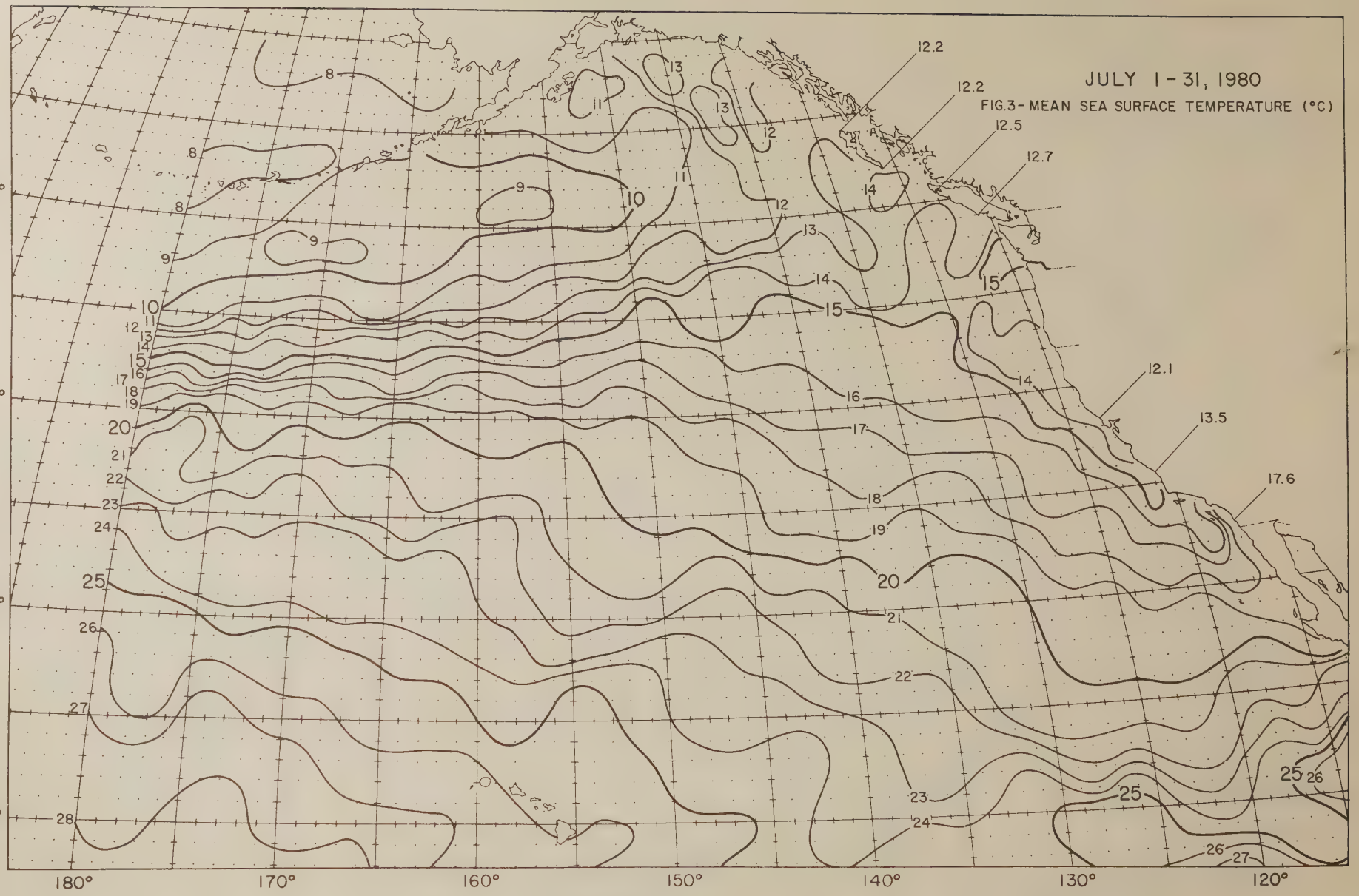
From June through July, SST's normally increase 1 to 2°C along the southwest coast of Baja California. Between 90°W and 115°W, north of 5°N some cooling normally takes place along tropical storm paths which form in this area. Normally two to four tropical storms can be expected to develop over warm water in July and move through the fishing grounds. In the southern hemisphere, SST's usually decrease 1 to 2°C in the Peru Current north of 20°S and along the equator east of 115°W.

During July 1980, SST's were more than 1°C above normal west of the southern tip of Baja California and between 120°W and 130°W north of 14°N (Figure 9). A band of below normal SST's between the warm water areas extended westward from the southwest coast of Mexico. Four tropical storms formed in July between 10°N and 15°N, west of 100°W and moved northwest leaving behind the band of cool water. One storm, Georgette, became a hurricane south of Baja at the end of July. The earlier storms and Georgette caused cooling of SST's along their paths where surface winds were high. On the outer edges of the storms, off Baja and west of 120°, surface winds were lighter and SST's warmed faster than usual because of frequent storm activity and weaker-than-normal trade winds (Figure 9). Several small areas with SST's more than 1°C above normal developed around 5°N west of 125°W. Apparently, the mild El Niño conditions, which developed in the eastern tropical Pacific in the spring of 1980, appeared in July around the Line Islands. Farther east along the equator, SST's began cooling faster than normal. Between 105°W and 145°W along the equator, SST's were more than 1°C below normal in two areas where upwelling apparently intensified in association with southeast trade winds that were strong at times near the equator.

The warm water (El Niño conditions) which persisted for several months along the coasts of Ecuador and Peru and along the equator east of 110°W diminished markedly in July. This occurred at mid-winter primarily because of an intensification of the southern hemisphere high pressure system east of 100°W and a subsequent increase in wind mixing of the ocean. Although some above normal SST's remain near the coast of South America and along 10°S between 110°W and 130°W, the extensive warm water areas, which persisted for many months off Peru, will probably not reappear until late in 1980 or early in 1981.

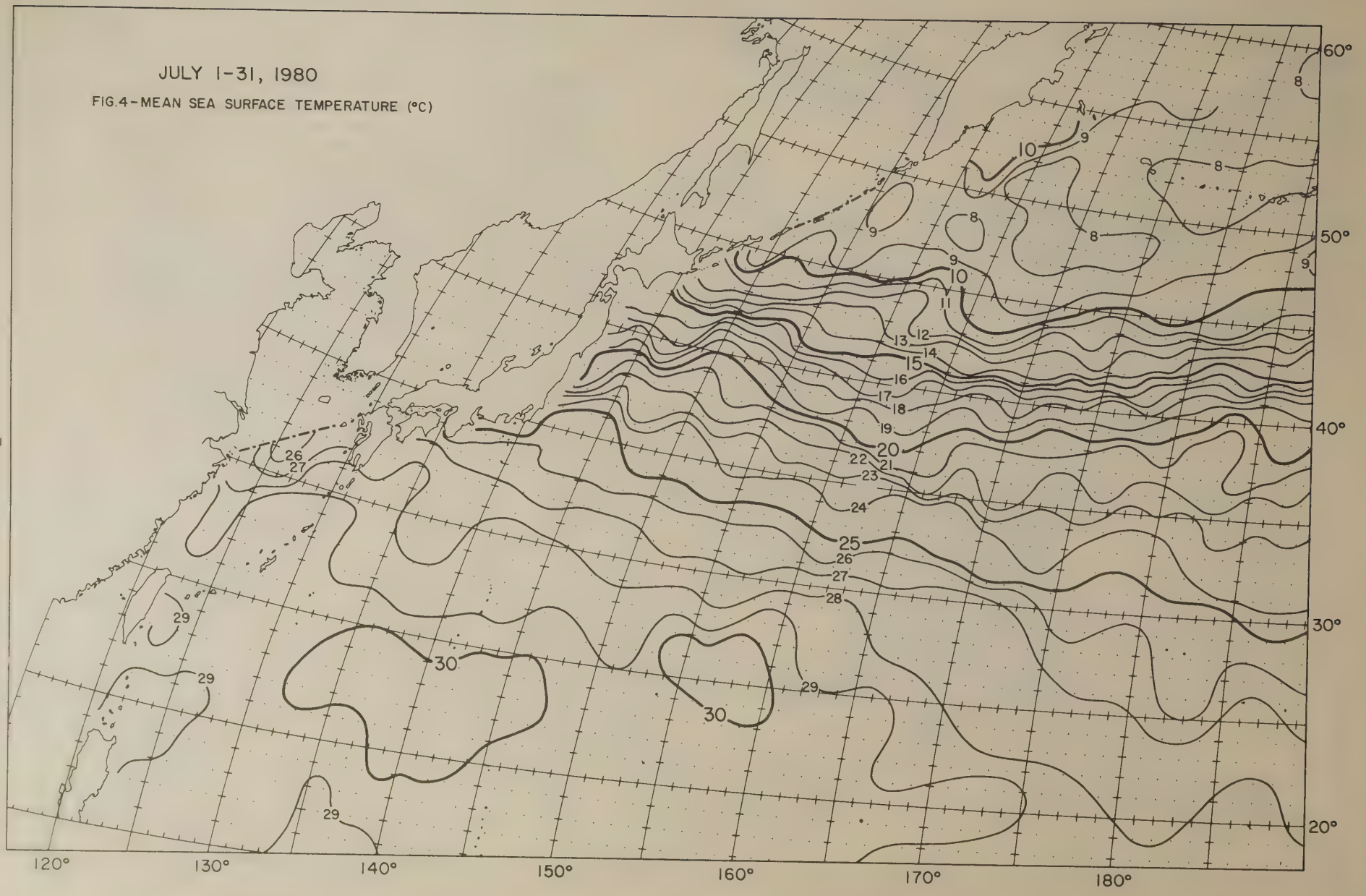

JULY 1961-1980
FIG. 1 —OBSERVED MEAN VALUE
—0000— BAROMETRIC PRESSURE (MILLIBARS).
RESULTANT WIND DIRECTION.
No. RESULTANT WIND SPEED (KTS.)
No. AVERAGE WIND SPEED (KTS.) REGARDLESS OF DIRECTION.
1016
1020
1024
1016
60° N.
55 N.
50 N.
45 N.
40 N.
35 N.
30 N.
25 N.
20 N.
180° W.
175 W.
170 W.
165 W.
160 W.
155 W.
150 W.
145 W.
140 W.
135 W.
130 W.
125 W.
120 W.
115 W.

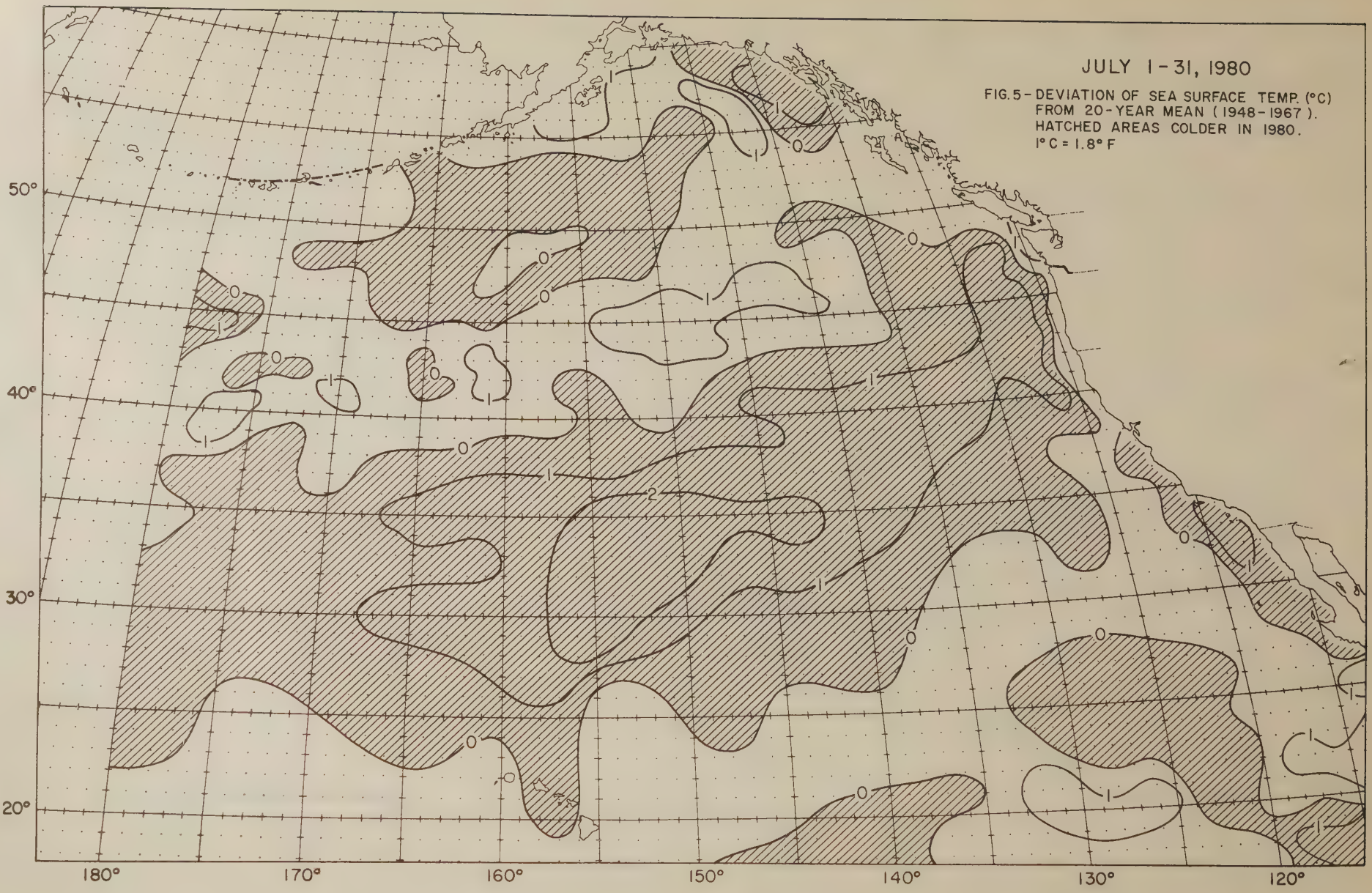

JULY 1980
FIG. 2 —OBSERVED VALUES
-0000- BAROMETRIC PRESSURE (MILLIBARS).
RESULTANT WIND DIRECTION.
No. RESULTANT WIND SPEED (KTS.)
No. AVERAGE WIND SPEED (KTS.) REGARDLESS OF DIRECTION.
1016
1020
1024
1028
1016
60° N.
55 N.
50 N.
45 N.
40 N.
35 N.
30 N.
25 N.
20 N
180° W.
175 W.
170 W.
165 W.
160 W.
155 W.
150 W.
145 W.
140 W.
135 W.
130 W.
125 W.
120 W.
115 W.

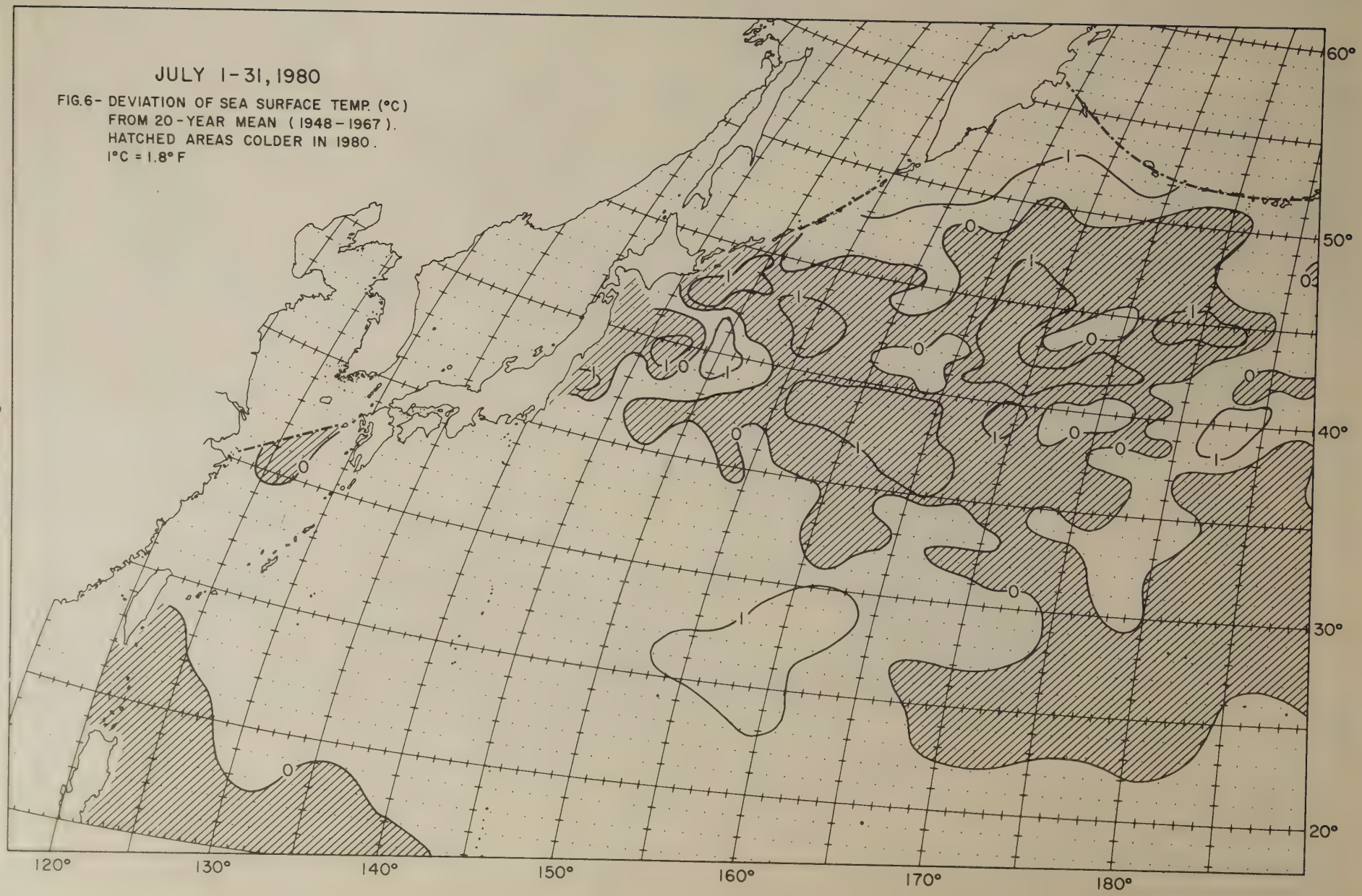

JULY 1 - 31, 1980
FIG.3- MEAN SEA SURFACE TEMPERATURE (°C)
50°
40°
30°
20°
180°
170°
160°
150°
140°
130°
120°

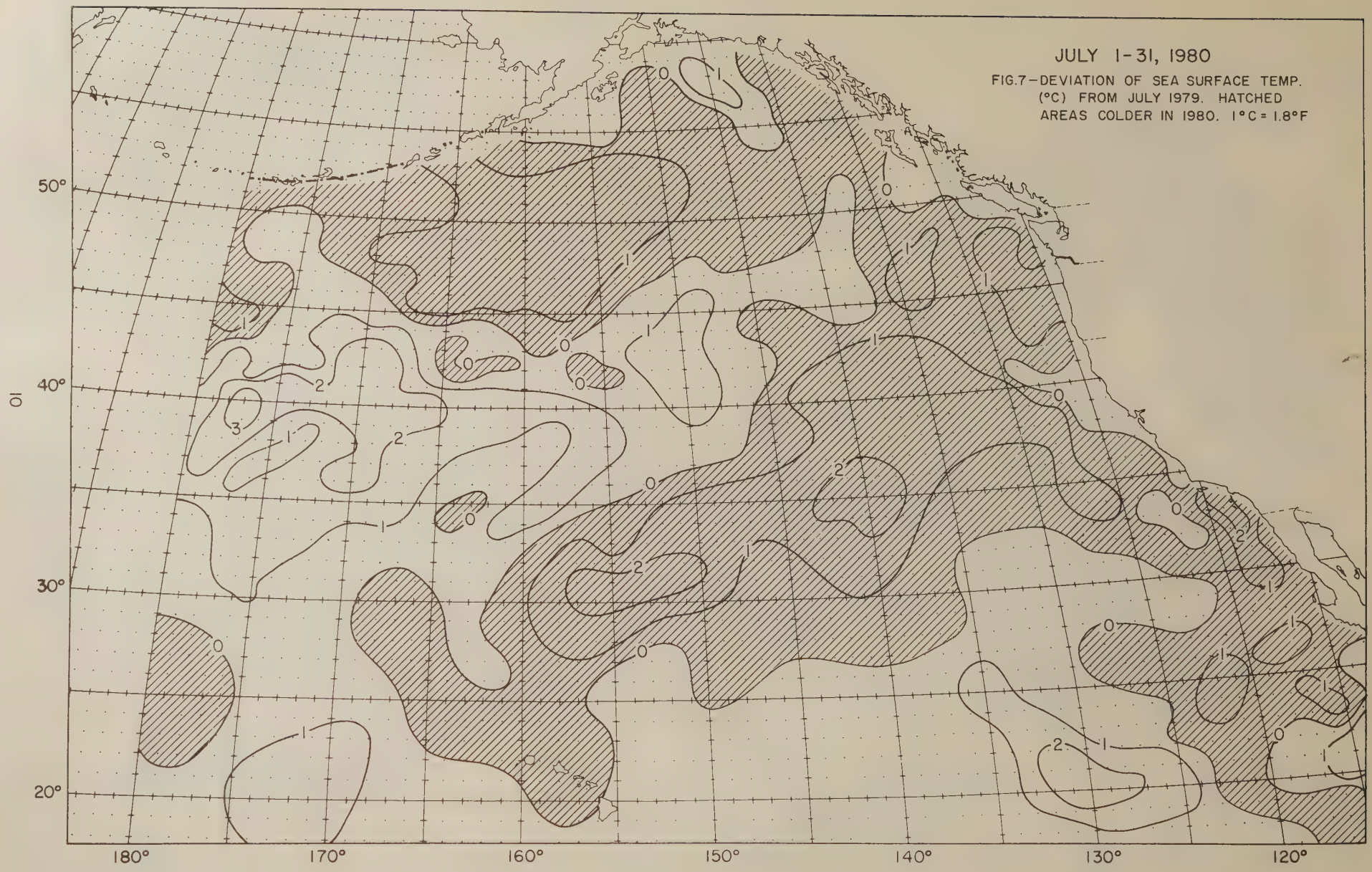
JULY 1-31, 1980

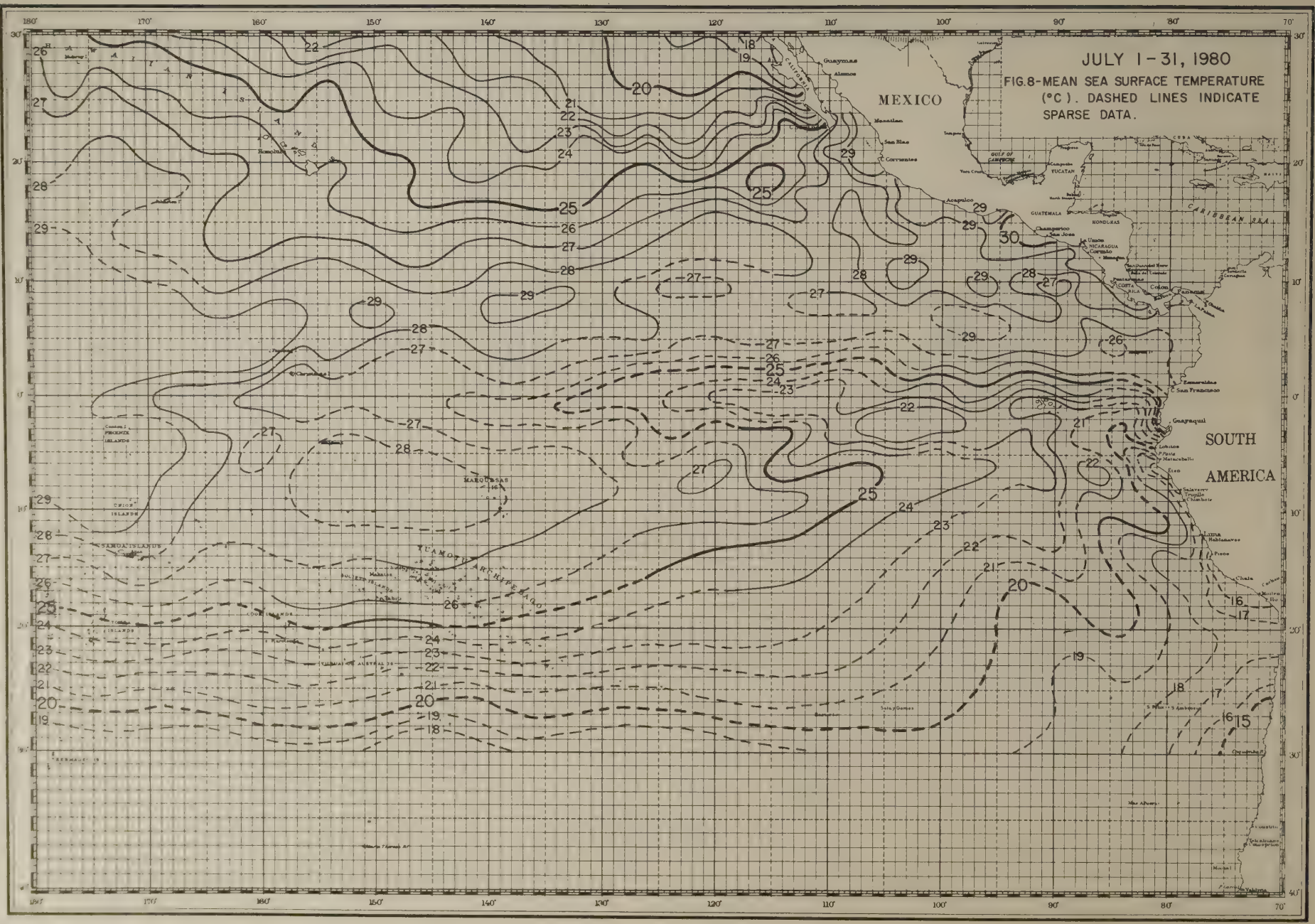
FIG.4-MEAN SEA SURFACE TEMPERATURE (°C)

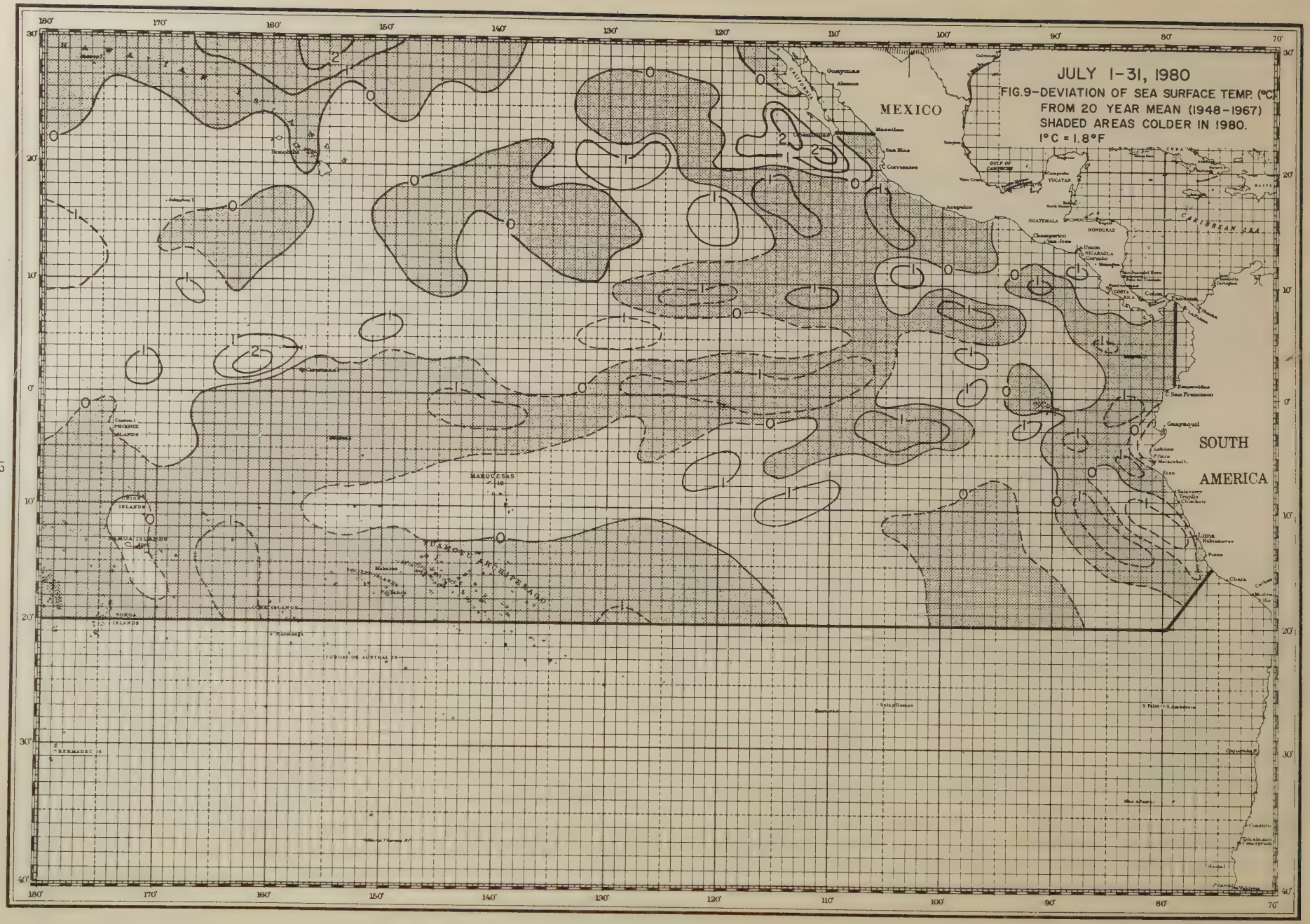



JULY 1-31, 1980
FIG. 5 - DEVIATION OF SEA SURFACE TEMP. (°C) FROM 20-YEAR MEAN (1948-1967). HATCHED AREAS COLDER IN 1980. 1° C = 1.8° F
50°
40°
30°
20°
180°
170°
160°
150°
140°
130°
120°


JULY 1-31, 1980
FIG.6- DEVIATION OF SEA SURFACE TEMP. (°C)
FROM 20-YEAR MEAN (1948-1967).
HATCHED AREAS COLDER IN 1980.
1°C = 1.8° F
60°
50°
40°
30°
20°
120°
130°
140°
150°
160°
170°
180°
0
1


JULY 1-31, 1980
FIG.7—DEVIATION OF SEA SURFACE TEMP. (°C) FROM JULY 1979. HATCHED AREAS COLDER IN 1980. 1°C = 1.8°F
50°
40°
30°
20°
180°
170°
160°
150°
140°
130°
120°


JULY 1 - 31, 1980
FIG.8-MEAN SEA SURFACE TEMPERATURE (°C). DASHED LINES INDICATE SPARSE DATA.
MEXICO
SOUTH AMERICA
HAWAIIAN ISLANDS
MARQUESAS
SAMOA ISLANDS
TUAMOTU ARCHIPELAGO
CARIBBEAN SEA
GUATEMALA
HONDURAS
NICARAGUA
COSTA RICA
Guaymas
Mazatlan
San Blas
Corrientes
Acapulco
Champerico
San Jose
Corinto
Panama
Colon
Guayaquil
Salaverry
Callao
Lima
Pisco
Chala
Mollendo
Arica
Iquique
Tocopilla
Antofagasta
Coquimbo
Valparaiso
Juan Fernandez Is.
Easter Island
Galapagos Is.
Cocos Is.
Clipperton I.
Revillagigedo Is.
Socorro I.
Honolulu
Midway Is.
Johnston I.
Palmyra I.
Christmas I.
Fanning I.
Tahiti
Pitcairn I.
Samoa Is.
Fiji Is.
Tonga Is.
Cook Is.
Society Is.
Tuamotu Archipelago
Marquesas
Line Is.
Phoenix Is.
Gilbert Is.
Ellice Is.
Marshall Is.
Caroline Is.
Mariana Is.
Wake I.
Bermuda Is.
Canton I.
Enderbury I.
Howland I.
Baker I.
Jarvis I.
Tokelau Is.
Swains I.
Samoa Is.
Niue I.
Tonga Is.
Fiji Is.
Rotuma I.
New Caledonia
Loyalty Is.
Norfolk I.
Lord Howe I.
Kermadec Is.
Chatham Is.
Auckland Is.
Campbell I.
Macquarie I.
Balleny Is.
Scott I.
Ross Dependency
Marie Byrd Land
Ellsworth Land
Antarctic Peninsula
Graham Land
South Orkney Is.
South Shetland Is.
South Sandwich Is.
Bouvet I.
Prince Edward Is.
Crozet Is.
Kerguelen I.
Heard I.
McDonald Is.
Amsterdam I.
St. Paul I.
Tristan da Cunha
Gough I.
Sala y Gomez
Easter I.
Juan Fernandez Is.
Desventuradas Is.
Alejandro Selkirk I.
Robinson Crusoe I.
Mocha I.
Santa Maria I.
Mas Afuera
Mas Atierra
Isla de Pascua
Isla Sala y Gomez
Isla Salas y Gomez
Isla Robinson Crusoe
Isla Alejandro Selkirk
Isla Mocha
Isla Santa Maria
Isla Mas Afuera
Isla Mas Atierra
Isla de Pascua
Isla Sala y Gomez
Isla Salas y Gomez
Isla Robinson Crusoe
Isla Alejandro Selkirk
Isla Mocha
Isla Santa Maria
Isla Mas Afuera
Isla Mas Atierra


JULY 1-31, 1980
FIG.9-DEVIATION OF SEA SURFACE TEMP. (°C) FROM 20 YEAR MEAN (1948-1967) SHADED AREAS COLDER IN 1980.
1°C = 1.8°F
MEXICO
SOUTH AMERICA
CARIBBEAN SEA
GUATEMALA
HONDURAS
NICARAGUA
COSTA RICA
PANAMA
CUBA
HAITI
YUCATAN
GULF OF CALIFORNIA
Guaymas
Mazatlan
San Blas
Acapulco
Manzanillo
Corinto
Guayaquil
Salaverry
Trujillo
Chimbote
Paita
Chala
Callao
Mollendo
Arica
Iquique
Tocopilla
Antofagasta
Valparaiso
San Antonio
Talcahuano
Puerto Montt
Chiloe
Juan Fernandez
Easter I.
Sala y Gomez
Marquesas
Tuamotu Archipelago
Tahiti
Society Islands
Cook Islands
Samoa
Tubuai
Austral Is.
Pitcairn I.
Henderson I.
Phoenix Islands
Tokelau Is.
Kermadec Is.
Galapagos Is.
Malpelo I.
Cocos I.
Clipperton I.
Revillagigedo Is.
Socorro I.
Roca Partida
Isla de Cedros
Isla Guadalupe
Isla Natividad
Isla Cerralvo
Isla Tiburon
Isla Angel de la Guarda
Isla Partida
Isla Coronados
Isla Cedros
Isla Magdalena
Isla Margarita
Isla Cerros
Isla Socorro
Isla Clarion
Isla Roca Partida
Isla Guadalupe
Isla Natividad
Isla Cerralvo
Isla Tiburon
Isla Angel de la Guarda
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Isla Socorro
Isla Clarion

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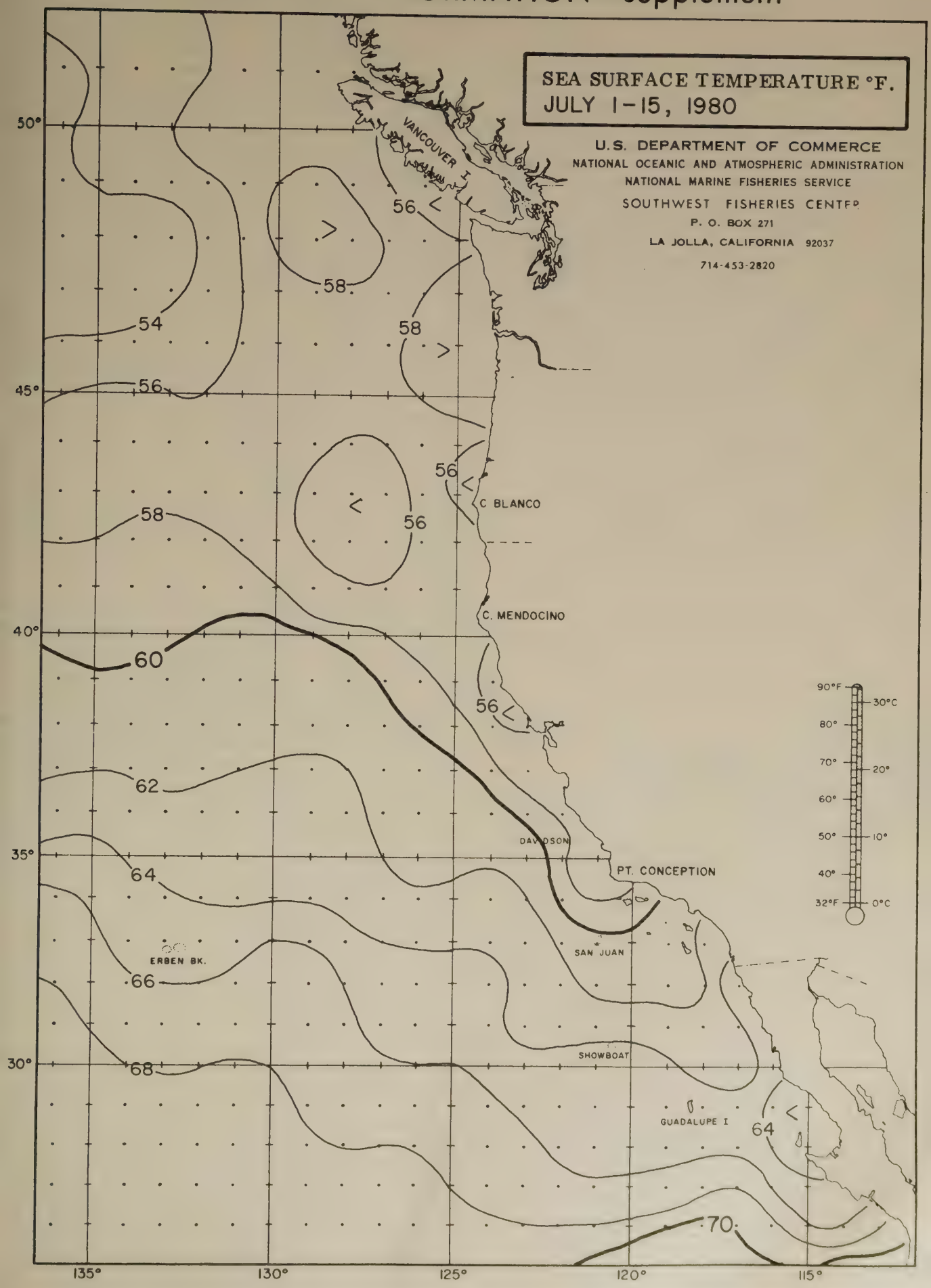

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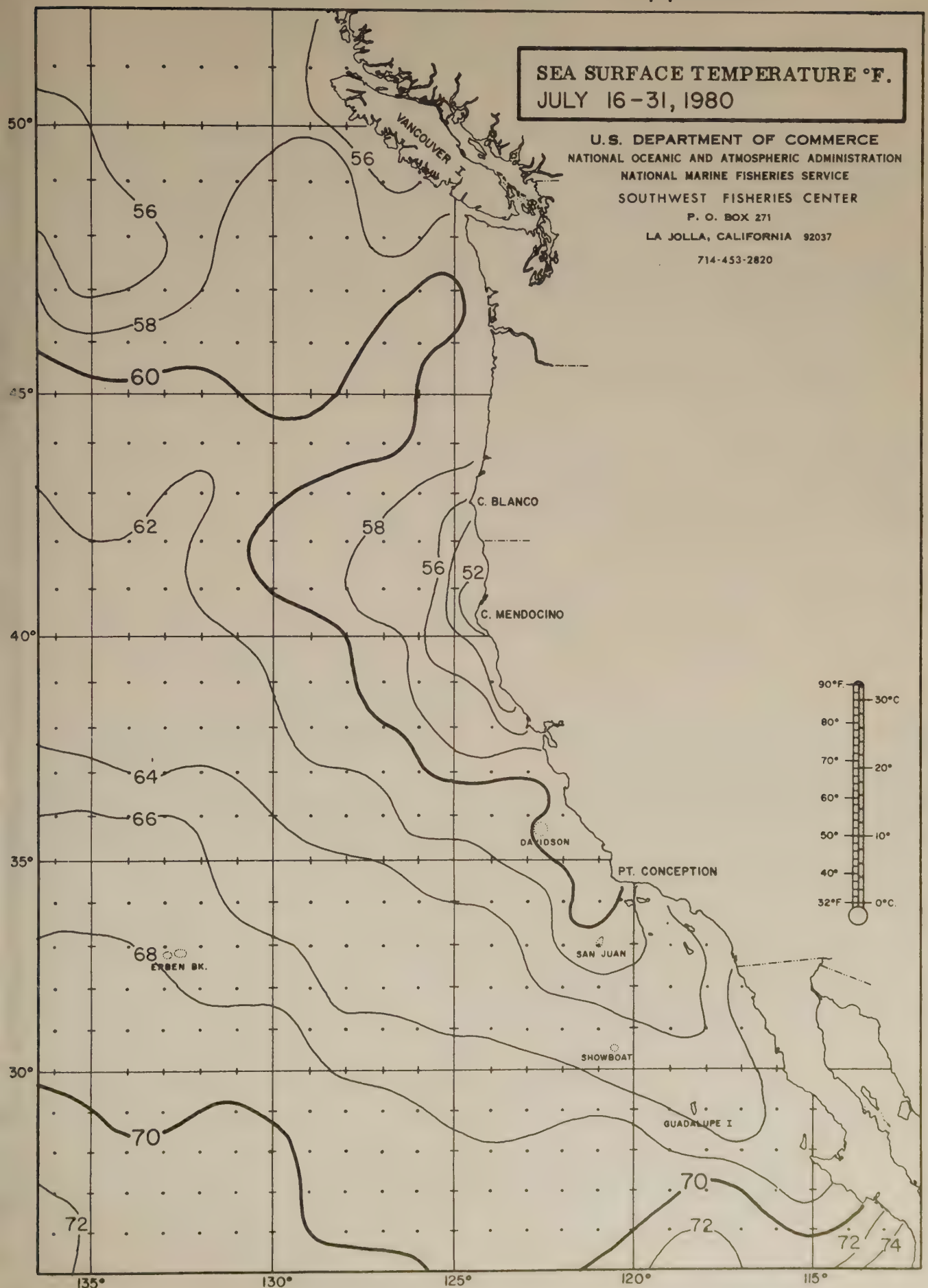

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NATIONAL MARINE FISHERIES SERVICE
Southwest Fisheries Center
La Jolla, California 92038

Bulletin No. 80-3

COMMERCIAL CATCHES SCATTERED: SAN DIEGO SPORTBOAT CATCHES GOOD

Commercial jigboats reported scattered catches from northern California to Baja California during July while San Diego sportboats had days of excellent fishing off Baja California. The better catches by the few commercial boats fishing have been made outside 300 miles off the central California coast and 90-110 miles south-southwest of San Diego. The San Diego sportboat fleet has also been fishing 60-110 miles south-southwest of San Diego.

The four jigboats on the 30-day, fuel-subsidized American Fishermen's Research Foundation's charter worked from offshore Cape Mendocino to 140 miles south of San Diego during July 1-15. The Betty H and Kismet fished off southern California and northern Baja California and reported daily catches of 3-68 fish from 95 miles south to 130 miles southwest of San Diego on July 1-4. On July 5-6, fishing improved and 86-174 fish scores were recorded from approximately 90 miles south-southwest of San Diego. However, because the Mexican government had announced that foreign boats would not be allowed to fish inside 200 miles of their coast without a valid Mexican fishing permit after July 6, the Betty H and Kismet moved 90-300 miles southwest to west-southwest of San Diego. Scores ranged from 0-65 fish a day during July 7-14. Large fish averaging about 22-24 pounds (10-10.9 kg) were caught nearshore Baja California and mixed-sized albacore of 5-34 pounds (2.3-15.5 kg) were caught farther offshore. Surface water temperatures in these areas were 61-64.5°F (16.1-18.1°C).

The Four C's and Veracruz, meanwhile, fished from 435 miles west of San Francisco, north to the Mendocino Ridge area, south to Morro Bay, and back north again, to offshore Monterey. Fair to good catches of 86-189 fish a day on 12-pound albacore (5.5 kg) were reported about 390 miles off San Francisco in 60-61°F (15.6-16.1°C) sea surface temperature waters on July 1-3; however, catches decreased and the two boats moved northward. Scores remained less than 37 fish a day from July 4-12 as the two boats fished less than 300 miles offshore from the Cape Mendocino area southward to Morro Bay. Larger fish of 13-24 pounds (6.8-10.9 kg) were caught. On July 13-14, catches improved for the Four C's and Veracruz and scores of 65-183 fish a day were made from 315-325 miles off Point Sur. The surface water temperature here was 64.5°F (18.1°C) and the albacore averaged 15-18 pounds (6.8-8.2 kg).

Few commercial jigboats fished off Cape Mendocino, near the Davidson and San Juan Seamounts, off Baja California, and offshore central and southern California. The boats that fished near the seamounts reported no catches, while those in the other vicinities had scores similar to the chartered boats that worked the area. Cold, green water was also noted nearshore central California to southwest of San Diego.

The San Diego sportboat fleet increased its albacore fishing effort in July. Although there were days when anglers landed less than 1 fish per rod, there were other days when catches were 1-6 fish per passenger. Much of their catches have been on large fish averaging 20-25 pounds (9.1-11.4 kg).

The Western Fishboat Owners Association has received verbal agreements from Pan Pacific, Starkist and Van Camps on the $1610/ton price of albacore delivered to canneries in San Pedro and San Diego. Bumblebee had agreed to this price in June.

During the first half of July sea surface temperatures (SST) were slightly above normal within 100 miles of the West Coast from Vancouver Island to Davidson Seamount. South of 35°N and west of 122°W, SST's were about 1°F (0.6°C) above normal as far west as 132°W. Inshore areas from Pt. Conception to Guadalupe Island experienced SST's 1° to 2°F (0.6-1.1°C) below normal. West of 125°W (off Cape Blanco), between 40°N and 45°N, SST's remained 2° to 4°F (1.1-2.2°C) below normal at less than 56°F (13.3°C) (see chart). These lower SST's were associated with strong northerly surface winds and heavy ocean mixing along the eastern boundary of a persistent high pressure system which has remained fairly stationary for some time along 145°W between 35°N and 40°N. For the past week a ridge of high pressure has extended northeastward from the center of the high to the coast of Washington.

The National Weather Service, Climate Analysis Center, Washington, D.C. outlook for July indicates no significant change in the position of the subtropical high pressure system and movement of weather fronts around the high for the last half of July. Therefore, the best fishing weather should remain off the coast of California south of 37°N and west of northern Baja California where SST's will remain slightly above normal on an average. Offshore from 38°N to 45°N, SST's will remain 2° to 4°F (1.1-2.2°C) below normal due to periodic strong surface winds and heavy cloud cover before and after the passage of several weather fronts. SST's west of Vancouver Island (along 130°W) and inshore continue to warm up at above seasonal rates.

The schedules and frequencies for the daily albacore fishing information issued by the NMFS have been finalized. They are as follows:

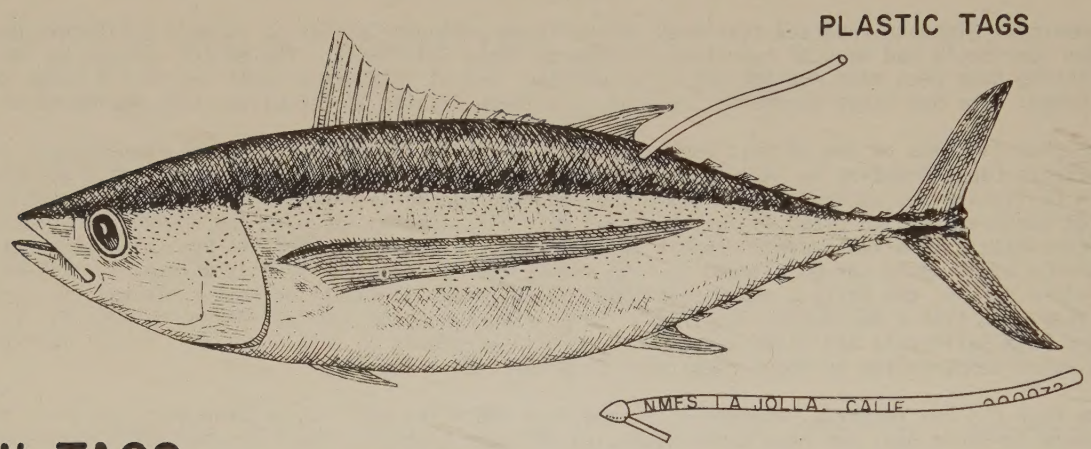
WWD (La Jolla, CA) on SSB carrier frequencies 4431.8, 8644.1 and 17408.6 kHz at 0645 and 1745 PDT weekdays and 0915 PDT on Saturdays.
WMC (Pt. Reyes Coast Guard) on SSB 8760.8 at 0645 and 1945 PDT, weekdays and Saturday morning.
KRED (Eureka, CA) on commercial AM 1480 kHz at 1630 PDT Monday and 0610 PDT Tuesday through Friday.
KBBR (North Bend, OR) on commercial AM 1340 kHz at 0605 and 1805 PDT, weekdays and Saturday morning.
KAST (Astoria, OR) on commercial AM 1370 kHz at 0610 and 1805 PDT, weekdays and Saturday morning.
KNPT (Newport, OR) on commercial AM 1310 kHz at 0615 and 1830 PDT, weekdays and Saturday morning.

Staff, Albacore Fisheries Program
R. Michael Laurs, Leader

July 15, 1980

$ REWARD $

FOR ALBACORE TUNA TAGS



YELLOW TAGS

THE NATIONAL MARINE FISHERIES SERVICE WILL PAY $ 2.00 FOR EACH YELLOW TAG RECOVERED. (NO NEED TO RETURN FISH)

RECORD:

- WHERE
- WHEN
- HOW

} *FISH WAS CAUGHT*

- LENGTH OF FISH (TIP OF LOWER JAW TO FORK OF TAIL)

FORWARD TO NMFS ADDRESS ON TAG

RED TAGS

THE NATIONAL MARINE FISHERIES SERVICE WILL PAY $ 50.00 FOR EACH RED TAG & FISH RETURNED. (FISH WITH TAG INTACT MUST BE RETURNED

RECORD:

- WHERE
- WHEN
- HOW

} *FISH WAS CAUGHT*

- LENGTH OF FISH (TIP OF LOWER JAW TO FORK OF TAIL)

NOTIFY NMFS P.O. BOX 271, LA JOLLA, CA. TEL. (714) 453-2820

THE AMERICAN FISHERMEN'S RESEARCH FOUNDATION WILL AWARD CASH PRIZES FOR YELLOW & RED TAG NUMBERS DRAWN IN AN ANNUAL LOTTERY.

U.S. DEPARTMENT OF COMMERCE
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
NATIONAL MARINE FISHERIES SERVICE
Southwest Fisheries Center
La Jolla, California 92038

Bulletin No. 80-4

ALBACORE CATCHES MADE FROM SOUTHERN CALIFORNIA TO WASHINGTON

Catches were made from southwest of the Cortes Bank off southern California to northern Washington during 15-31. The most consistent area of fishing was apparently about 60-125 miles southwest of the Cortes Bank e fishing was spotty on predominantly 20-30 pound (9.1-13.6 kg) albacore. Jigboats averaged 12-40 fish/day/boat July 16-24 while baitboats reported slightly better fishing. After July 24, boats in this location began to about looking for better fishing and found an area of fish near the San Juan Seamount where a few albacore had caught earlier in the month. Top scores near the seamount and about 80 miles offshore were over 100 fish for oats and 300-400 fish for baitboats. The sizes of these albacore were similar to the fish caught southwest of Cortes Bank.

Some catches on albacore averaging 9-16 pounds (4.1-8.2 kg) were made approximately 150-320 miles offshore be- Point Sur and Point Arena, California in mid-July; but rough seas, poor fishing and better fishing prospects he Pacific Northwest caused boats to leave this area. A few albacore catches, however, were made in the ey area in the last week of July as boats began to scout for albacore in the nearshore waters off central rnia.

As more effort was expended in the Pacific Northwest in mid-July, catches were made off Cape Blanco, Oregon then in the Newport, Oregon and "dumping grounds" area off the Columbia River. Fishing, however, was generally and daily scores of 2-45 fish were reported until July 28. Fishing improved after this date and scores of up 40 fish were reported from about 150 miles off Newport. Meanwhile, other boats scouted the offshore seamount s off Washington, but no concentration of albacore was found. Albacore landed from the Pacific Northwest aged about 9-14 pounds (4.1-6.4 kg).

The jigboats, Betty H, Kismet, and Inez C, were on charter to the American Fishermen's Research Foundation for of the second half of July. The Betty H and Kismet worked 60-125 miles southwest to west-southwest of the es Bank from July 15-23 in sea-surface temperatures of 63-65°F (17.2-18.3°C). Catches for the two boats ranged 4-93 fish/day and averaged about 30 fish/day/boat for the 9 days of fishing. The median sizes of these fish 16-25 pounds (7.3-11.4 kg). On July 24, the Betty H and Kismet fished eastward, but fishing was poor and both s completed their charters in San Diego on July 25. The Inez C left Eureka, California on July 21 and headed to approximately 180 miles offshore before heading north. Small catches of 1-2 fish were made on a few days een Eureka and Heceta Head, Oregon in 60-61°F (15.6-16.1°C) waters. After reaching the latitude of Cascade Head, on, the Inez C worked westward but reported catches of only 1 albacore on a couple of days while fishing 315-400 s offshore between Cascade Head and the Columbia River.

Few catches were made by sportboats off San Diego, Santa Cruz and the Columbia River. Much of the catches off Diego were made by boats on 2-3 day trips because albacore were found far offshore and by the last week of July, of the sportboats were fishing for other species.

During the last half of July, sea-surface temperatures (SST) were 1° to 2°F (0.6°C) below normal over a wide from Cape Blanco to San Francisco and extending southwestward to a line from Erben Bank to 42°N, 135°W. In this northerly surface winds were usually 20 to 30 knots along the eastern edge of the Pacific high pressure system. center of the high was 600 to 800 miles west of Cape Mendocino on an average. Winds increased to 40 knots at s when the high shifted toward the coast and intensified. Most of this period, a weak high pressure ridge ex- ed northeast from the center over Washington and British Columbia. As a result of lighter winds under this e, SST's north of 43°N along the coast and west of 130°W warmed up to more than 58°F (14.5°C) after mid-July chart). However, along the coast from Cape Blanco to Point Conception, SST's cooled at greater than normal s. Good temperature edges formed 50-100 miles offshore from 38°N to 43°N and between the Davidson and San Juan ounts. These tight temperature gradients or edges should remain during the first half of August as coastal up- ing continues to develop along the coast of Oregon and central California. West of a line through Guadalupe nd and San Juan Seamount SST's have been 1° to 2°F (0.6°C to 1.0°C) above normal. Only in the Los Angeles Bight SST's below normal. These conditions are expected to remain for the next 10 days or longer.

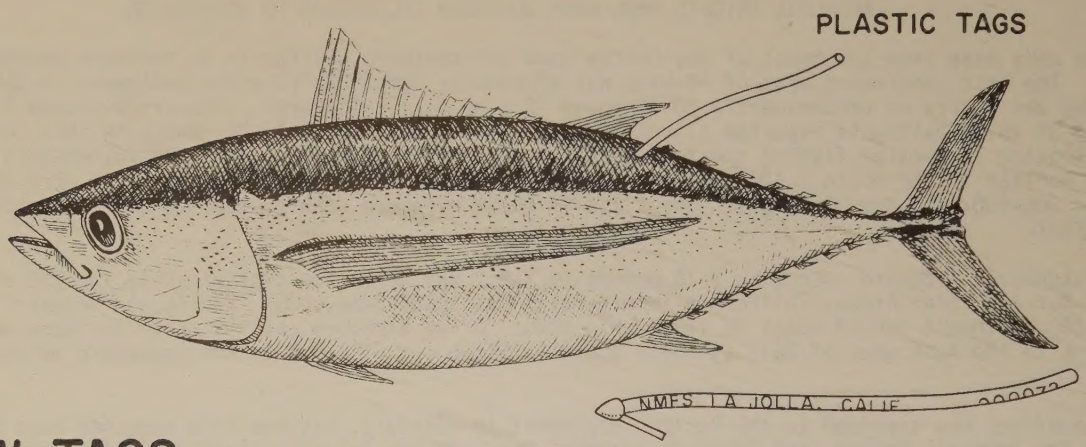
The National Weather Service Climate Analysis Center, Washington, D.C., outlook for August shows the position he high pressure center and storm tracks to be similar to the last half of July 1980. Therefore, the fishing her and SST conditions should not change greatly from those of the last week. The best temperature edges should ist from Cape Blanco to San Francisco Bay and offshore from the Davidson to San Juan Seamounts. Offshore, west of W from 35°N to 45°N, SST's will remain below normal in seas that are frequently very rough (10-14 feet) and sur- winds 25 to 40 knots. North of 45°N and south of 35°N, seas and winds will usually be much lighter and SST's will to warm at above seasonal rates. Most heavy weather fronts will move into the Gulf of Alaska and British mbia.

31, 1980

Staff, Albacore Fisheries Program
R. Michael Laurs, Leader

$ REWARD $

FOR ALBACORE TUNA TAGS



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